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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,850	05/13/2005	Gustav Schweiger	ABP 1132-KFM	8960
10037 7590 02/21/2007 MILDE & HOFFBERG, LLP 10 BANK STREET SUITE 460 WHITE PLAINS, NY 10606			EXAMINER CHU, CHRIS H	
			ART UNIT 2874	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			02/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/534,850

Applicant(s)

SCHWEIGER, GUSTAV

Examiner

Chris H. Chu

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 22-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24 and 25 is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 6-10 is/are rejected.
- 7) ☒ Claim(s) 3-5, 22, 23 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Applicant's Amendment filed November 20, 2006 has been fully considered and entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (EP 0251496 A2 from the applicant's Information Disclosure Statement) in view of Ilchenko (US 2003/0012504 A1).

Regarding claim 1, Jones discloses a temperature sensor using a light source (1 in Fig. 1) and a light guide (2 in Fig. 1) coupled to a radiation modulation means (3 in Fig. 1) and means for the observation of light (photoresponsive elements 6,7 and microprocessor 10 in Fig. 1). Jones teaches the claimed invention except for a resonator mounted in a cutout of the light guide. Ilchenko teaches an optical resonator shaped as a microparticle (see paragraph 0003), a light guide having an end portion which is hollow, defining an inner space (groove 1010 in Fig. 11), and wherein the resonator is at least partly mounted in the space formed in the light guide and optically

Art Unit: 2874

coupled to the light guide in Figs. 10 and 11. Since by definition something that is hollow has a space or cavity inside, the end portion of the light guide can be considered hollow since it has a rectangular groove 1010 running through the end. Also, in Figs. 5C and 5D and paragraphs 0037 and 0038, the resonator is shown mechanically coupled to the light guide. Further, it would have been obvious to fix the resonator to the light guide for the purpose of providing a stable device. Since both inventions relate to coupling resonators to light guides, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the sensor of Jones by coupling the resonator to the light guide as disclosed by Ilitchenko for the purpose providing more efficient coupling and hence a more robust device.

Regarding claim 2, Ilitchenko discloses the space formed on a free end of the light guide having an opening to the front side of the light guide in Fig. 10.

Regarding claim 6, Ilitchenko discloses the resonator contacting the light guide at two locations which are separated by a distance in Fig. 10. Ilitchenko teaches the claimed invention except for specifically stating the resonator held in the cutout by self-clamping forces and adhesive forces. However, since the resonator is shown mechanically coupled to the light guide in Figs. 5C and 5D and paragraphs 0037 and 0038, one having ordinary skill in the art at the time the invention was made would have found it obvious to have the resonator held in the space by using self-clamping forces and adhesive forces for the purpose of better securing the resonator.

Regarding claim 7, Ilitchenko discloses the resonator positioned with a gap remaining between the resonator and the light guide in Fig. 11.

Regarding claim 8, Itchenko discloses the light guide to be tapered at its free end in Fig. 10.

Regarding claim 9, Itchenko teaches the claimed invention except for the light guide closed at its free end by a cap or a sealing compound. However, as stated in the rejection of claim 6, attaching components to waveguides by clamping is well known in the art and one having ordinary skill in the art at the time the invention was made would have found it obvious to use a clamping device which would be a cap that closes off the free end of the light guide for the purpose of securing the resonator in the desired position.

Regarding claim 10, Itchenko discloses the light guide to have a lengthwise slit on its end in Fig. 10.

Allowable Subject Matter

Claims 24 and 25 are allowed.

Claims 3-5, 22, 23 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art cited on attached form PTO-892 is the most relevant prior art known, however, the invention of these claims distinguishes over the prior art of record because none of the references either alone or in combination disclose or render obvious what is defined in these claims.

Claims 24 and 25 are allowed since they contain the limitations of objected claim 3 and in independent form. Claim 25 depends from claim 24.

Claims 3 and 4 were previously objected to as containing allowable subject matter but dependent on a rejected base claim, for the reasons stated in the office action dated August 23, 2006.

Claims 5 and 26 distinguish over the prior art of record for the reasons stated in applicant's arguments, pages 6-10, filed November 20, 2006.

Claim 22 distinguishes over the prior art of record because it discloses more than half the resonator received in the space at the end portion of the light guide. Itchenko teaches the width of the groove to be $1/10$ to $1/3$ of the diameter of the resonator, which makes it impossible for the more than half of the resonator to be inside said space.

Claim 23 distinguishes over the prior art of record because it discloses the resonator contacting the light guide at two points separated by a distance which is larger than half of a diameter of the resonator. Itchenko teaches the resonator to contact the light guide at the two endpoints of the width of the groove, which is disclosed to be $1/10$ to $1/3$ of the diameter of the resonator.

Response to Arguments

Applicant's arguments, see pages 6-10, in the amendment filed November 20, 2006 with respect to the rejections of claim 1, have been considered but are moot in view of the new ground(s) of rejection. Applicant's arguments with respect to claim 5

Art Unit: 2874

have been considered and are persuasive. As such, the rejection with respect to claim 5 has been withdrawn.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chris H. Chu whose telephone number is 571-272-8655. The examiner can normally be reached on 8:30 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on 571-272-2344. The fax phone

Art Unit: 2874

number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general or clerical nature should be directed to the Technology Center 2800 receptionist at telephone number (571) 272-1562.



Chris H. Chu
Patent Examiner
February 9, 2007



MICHELLE CONNELLY-CUSHWA
PRIMARY EXAMINER

2/5/07